

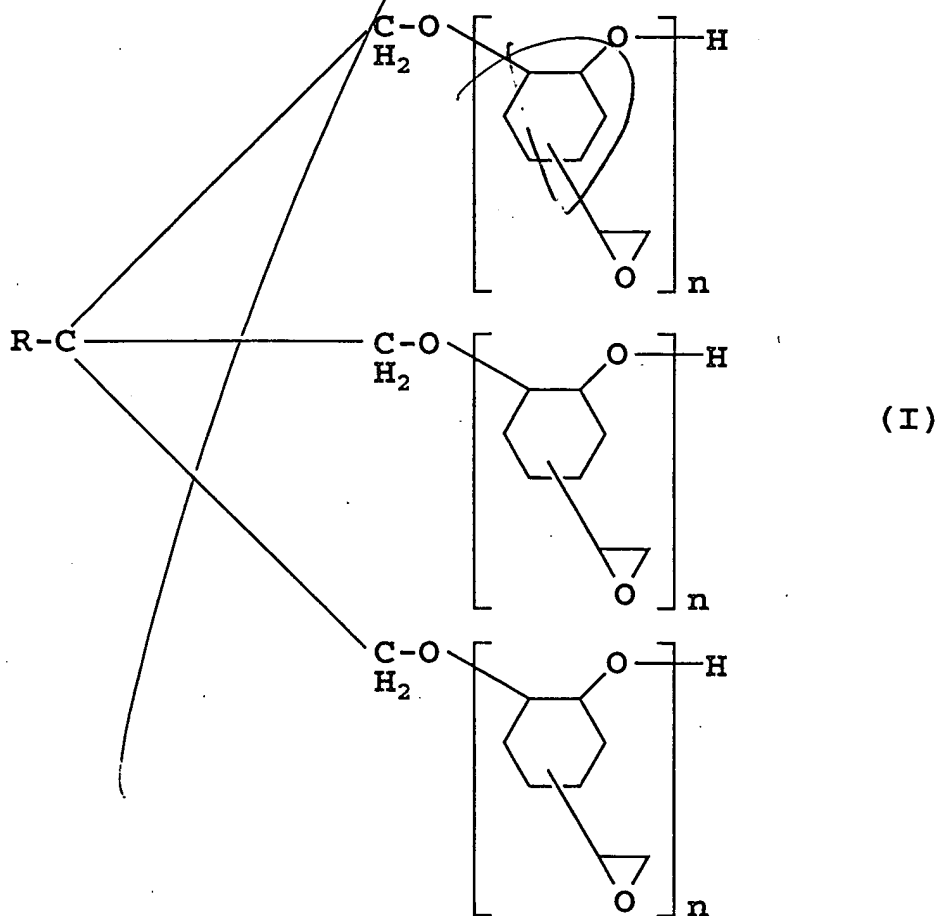
IN THE CLAIMS:

Please cancel claim 10 without disclaimer of the subject matter thereof and replace claims 9 and 11 with new claims 9 and 11 which have been amended in accordance with the attached marked-up copy.

SUB D1 9. (Once amended) A method for producing a multi-mode optical waveguide comprised of at least one core and a cladding having a refractive index which is lower than that of the at least one core, the method comprising the steps of:

forming an under cladding layer onto a substrate;

preparing a mixture containing a reactive oligomer having general formula (I) and a photopolymerization initiator by blending, and controlling viscosity of the mixture to provide a viscosity mixture ranging from 500 cps to 10,000 cps by blending the reactive oligomer in an amount ranging from 10 to 50 wt %.



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where R is C_mX_{2m+1} , where m is a natural number, X is one of a hydrogen atom, a heavy hydrogen atom, or a halogen group, and n is a natural number;

forming on the under cladding layer a layer of the mixture by spin coating at about 1000 rpm;

irradiating the layer of the mixture either with light through a mask or directly with condensed light, to form a latent image in pattern form which includes irradiated areas and non-irradiated areas;

removing the layer of the mixture in the non-irradiated areas with a solvent to form a pattern, for use as a core portion, for passage of light; and

forming an upper cladding layer on the core portion and an upper portion in the surroundings thereof.

11. (Once amended) The method according to claim 9, wherein the reactive oligomer having general formula (I) has a value for n which is five.